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ARCHÆOLOGICAL NEWS.

Summary of recent Discoveries and Investigations.

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AFRICA.

TUNISIA.

Limits of Roman occupation.—M. Blanc, who was charged by the *Soc. des Antiquaires* with a mission in Tunisia, occupied himself mainly in determining the southern boundaries of the Roman occupation in Tunisia, Tripoli and Southern Algeria. He presented a report on the subject to the Society on Jan. 29, 1890.

Excavations made during 1890.—On p. 520 of vol. VI, it was stated that the archæological campaign of 1890 was the most fruitful ever undertaken in Africa. While awaiting the full report which will be presented by M. de la Blanchère to the *Académie des Inscriptions*, the following is taken from the summary already communicated by him to the Academy and published in the *Ami des Monuments*.

Bulla Regia.—The excavations were, as before, under the direction of Dr. Carton and were the continuation of those of the previous year. Still, they were not confined to the Roman necropolis which continued to furnish its supply of lamps, pottery, and funereal objects. The Punic necropolis was attempted, but the greater part of its tombs had been pillaged, and the block of rock above it, on which the head of a divinity is rudely carved, was sent to the Bardo. The Berber necropolis, in dolmens, was also excavated and furnished a number of singular rude pieces of pottery. Several soundings were made in the ruins of the city itself, and its level was found at the great depth of some ten metres, under *débris* and earth. The contents of the Roman necropolis are of all ages and extremely interesting: all modes of burial, from cremation to inhumation in leaden coffins, have been met with.

GAFSA.—The beautiful mosaic found here representing the circus at the moment of a race, with rows of seats filled with spectators, has been removed from its site and transported to the Bardo museum.

MAGHRANE.—BIRCHANA.—In this property, at Maghrane, near Zaghouan, the discovery of a mosaic had been made, some time ago; but it was only partially uncovered. It has now been given to the museum of the Bardo by M. Humbert. It is composed of a hexagon geometrically divided into a number of compartments which form zones around a head of Saturn. The first zone contains the divinities of the other six planets, forming, with the centre, a representation of the week; around, in a second zone, run six animals; a last zone contains the signs of the zodiac. Such paintings are not rare, but this one is remarkable for the perfect execution of the mosaic-work, which is superior to most of the African work. Outside of the zodiac are two semicircular medallions, finer both in drawing and workmanship, which represent, one, the head of Oceanus, the other, a peacock.

MAHEDIA.—M. Hannezo renewed the exploration of the Neo-Punic necropolis near this city. He examined over a thousand tombs, of which not one in a hundred were intact. However, a considerable number of objects were found, of which a large portion were given by him to the museum. His most interesting discovery is probably an inscription in very early Cufic characters cut on the wall of the well that leads to one of these sepulchral vaults, above its entrance. It not only shows that these tombs were made use of again at the time of the Mussulman invasion, but it appears to be the earliest example of Arabic epigraphy existing in Barbary.

SOUSSA=HADRUMETUM.—M. Doublet, a former member of the School at Athens, was charged with continuing the exploration of the Roman necropolis of Hadrumetum. He unearthed a considerable number of hypogea, each usually containing several tombs, and enclosed in nine separate walls. The whole appears to belong to the second and especially to the third century of our era. The most important of the objects found is a series of terracotta statuettes representing single figures and groups, Venus, Bes, busts, bigas and quadrigas, horsemen, a love-scene, a camel. There are between 60 and 65 of these statuettes, 40 of which are quite intact. Some bear vivid traces of the colors with which they were painted, some are charming, all are interesting. Beside these, there are lamps; pottery; stamped bricks; a *tabella devotionis* in Greek, the largest known (47 lines, 255 by 245 mill.); a small lead triptych with Venus and Cupid, to be hung around the neck; and a very delicate mosaic representing a vessel arriving at port and unloading genii. In the course of removing this mosaic, MM. Doublet and Pradère discovered another which is a piece

of capital importance. It represents Oceanus lying on a banqueting couch in the midst of his kingdom. His head is covered with lobster-feet, and his beard is of green seaweed. He is drunk and is snapping his fingers; around him is the sea full of finely drawn fish. This work is being removed.

TABARKA.—Excavations are still in full activity on this site, the work being concentrated on the Christian cemetery or rather cemeteries of the ancient Thabraca. Besides a number of objects and human remains, there have been unearthed some hundred Christian and pagan inscriptions, and more than sixty mosaic sepulchral slabs. These slabs, always interesting and often of great beauty, now form a unique series, as curious from the point of view of mosaic-art as precious for the study of the fifth and sixth centuries. For these sepulchral slabs not only include epitaphs but are decorated with male and female figures, some of which appear to belong to dignitaries of the community, with male and female *oranti*, with varied decoration and attributes, and also animals. Before this, there had been found at Tabarka seven mosaics, which though in great part destroyed had given an idea of this series. Near Tabarka, at the Clouet-Godmet farm, was excavated a construction with three apses from which was taken a mosaic not less than fifteen metres square. Unfortunately, the central composition was almost completely ruined, and of it only some fine fragments of animals were left. The mosaic pavement of the three apses represents the various buildings of a large rural establishment, each with its characteristic form, its occupants, animals, pet birds or barnyard fowl, with its surroundings, vineyards, orchards, groves, olive plantations, rocks, ponds. In one of the pictures is a seated spinner of most remarkable workmanship.

TUNIS.—THE MUSEUM.—M. de la Blanchère adds that the Museum at Tunis received further additions from the investigations at the Belvedère, at Maktar, at Souk-el-Arba, *etc.* He calls attention to the riches that are accumulating, and forming here a collection of first-rate importance, especially in its unrivalled series of Roman mosaics. But all the funds are expended in digging and transportation; nothing is left for the expenses of mounting and exhibiting, and the arrangement of the collections will be delayed until financial assistance is obtained.—*Ami des Mon.*, 1891, pp. 34–38.

CASTELLUM MUTECI.—Father Delattre has established the site of Castellum Muteci, in Mauretania Caesarensis, at a place called *Aïn Aneb* seven kilom. from Tessemsil in the region of Teniet-el-Had. It was a bishopric in 482. At that time Quintasius was bishop, and he was exiled by Huneric, king of the Vandals in 484. It was also the seat of a *praepositus limitis*, who was under the orders of the *dux et praeses prov. Mauritaniae Caesariensis*. An inscription over the very door of the *Castellum* in two lines gives its name .... CASTELLVM | MVTECI POSITVM | EST ANP | CCCCXXX ET GIII. Hence the *Castellum* was founded or rebuilt in 479 or 480.—*Bull. Soc. Antiquaires*, 1890, p. 64.

ALGERIA.

ORLEANSVILLE.—A ROMAN MOSAIC.—The *Bulletin* of the *Soc. des Antiquaires* (1890, p. 61–2) publishes a mosaic which was found in June, 1883, in the court in front of the main entrance of the military hospital at Orleansville, among remains of ancient constructions similar to those of the Roman baths at Gafsa in Tunisia. Orleansville probably occupies the site of the Roman *Castellum Tingitanum*. The mosaic measures 1.67 by 1.83 met. Its coloring is extremely bright and it is perfect except where part of the chest of two of the figures has fallen away. Its style dates from the first half of the third century. There are two scenes represented together, both hunting scenes. Below, a panther leaps out of a wood at a horseman: above, two men on foot accompanied by a dog are withstanding a wild boar at whom one of the men is aiming a boar-spear. Above, are two lines of inscription: SILIQVA FREQVENS FOVEAS MEA MEMBRA LAVACRO.

ASIA.

JAVA.

SEPULCHRAL MONUMENTS.—Last year, Dr. Hamy called attention to the excavations which were being carried on in the interior of Java by several Dutch archæologists; and connected mainly with Buddhistic monuments of the Plambanan plain. Thanks to a communication of M. Ysermann, Dr. Hamy was able to inform the *Académie des Inscriptions*, on March 25, of some more recent discoveries made in the Civaïtic ruins of this plain under the direction of Dr. Groënemann. These excavations included the clearing of a number of inner chambers whose sepulchral character M. Ysermann ascertained by finding under the base of the statues of the gods several cinerary pits. The outer galleries and the base of the monuments were disengaged from *débris* engaged in a thick alluvial deposit. Four rows of magnificent basreliefs were uncovered, photographs of which were exhibited to the Academy. One of these rows of reliefs forms a kind of illustration to a part of the famous Indian poem, the *Ramayana*.—*Ami des Mon.* 1891, p. 110.

PHŒNICIA.

SIDON.—CHRONOLOGY OF ITS KINGS.—M. Ernest Babelon has communicated to the *Acad. des Inscr.* (Dec. 5, 12, 1890) some discoveries which he has made on the coins of the kings of Sidon struck in the fourth century B. C. under the dominion of the Persian Achæmenidæ. These coins have on one side the Sidonian galley, on the other the head of the king of kings in a three-horse chariot followed by a tributary king on foot. The legend

is composed usually of two Phœnician letters and a cypher. M. Babelon divides these coins into groups each belonging to a different person, either a king of Sidon or a Persian Satrap of Egypt, or the satrap of Kilikia, Mazaios. The Phœnician letters are the initials of their names and the cyphers are the dates expressed in the years of their reigns. M. Babelon proposes this chronology.

1. An anonymous king, died in 374;
2. Strato I, 374–362;
3. Tennes, 362–350;
4. Interregnum, 350–349;
5. Evagoras II (dispossessed king of Salamis), 349–346;
6. Strato II, 346–332.

Sidon was captured by Alexander in 332.

ASIA MINOR.

SINDJIRLI.—SUMMARY OF THE GERMAN DISCOVERIES.—Chr. Belger publishes in the *Berl. phil. Woch.*, 1891, Nos. 26, 29–30, an account of the results of the German expedition to Sindjirli undertaken in 1889, of which a summary is here given. Further references may be found in the JOURNAL, vol. III, p. 62 (Ward's and Frothingham's article on the sculptures) and vol. IV, pp. 483–5. Sindjirli lies near the boundary between Asia Minor and Syria. What race inhabited it is still doubtful, the veil that obscures the "Hittites" not being yet lifted. An important indication is the finding of Aramaic inscriptions. A fortified city existed here in about 900 B. C. surrounded by a double wall and crowned by a strong acropolis within which the greater part of the sculptures were found. The history of the investigation of its ruins is as follows. In 1883, under Hamdy Bey's directions, some of the sculptures were uncovered in the ruins of a palace. These were seen and photographed by Mr. J. S. Sterrett and Mr. Haynes and published in the *Journal of Archæology* by Dr. Ward. They were also visited by Dr. Puchstein, who published them again in his *Reisen in Kleinasien und Nordsyrien* (Berlin, 1890), without acknowledging our previous publication. When the Oriental Committee was organized in Berlin for the purpose of excavating in the East, it was decided to make attempts both in Mesopotamia and Syria. Mess. Humann, von Luschan, Winter, and Koldewey conducted the excavations at Sindjirli, which was the first site selected. The work lasted during three campaigns and was reported (June 10, 1891), in the *Museum für Völkerkunde* in Berlin.

City.—The centre of the city is formed by a hill running SW and NE. Upon it the various kings built their palaces, each adding to his predecessor's work. The gates of the walls that enclose this hill are on the exposed south side where it slopes toward the plain. The road winds

up through the larger gateway. Inside, facing the entrance is a wall strengthened by towers, stretching across the hill in which a second gateway is cut. Both gateways were decorated in their lower part with sculptures carved on upright blocks of stone about six feet high. One half of these were sent to Constantinople, the other half to Berlin. From the interior of the second gateway came two lions. It is probable that a second wall with its gateway extended across the top of the hill, but this section has not yet been fully excavated. On this strongly protected plateau of the acropolis stood the palaces: the oldest stands on the highest point, to the NW.; the latest belongs to about the year 730 B. C.

Taking the hill as a centre, the inner city-walls are built at a distance from it of between 200 and 250 metres. There are two walls within a small distance of each other, the diameter of the outer circuit being 700 metres. Both walls are strengthened by about one hundred pier-like projections, which are identified as being towers, by a comparison with the plans and siege scenes, in Layard's Nineveh. In his *Monuments of Nineveh*, 1st series, pl. 30, the view of a similar circular city is given; to which also pl. 77 may be added. In his second series are views of numerous cities, built on an oval plan or as paralellograms with rounded corners. Here, also, a double wall is almost always seen, strengthened by towers and crowned by battlements, the outer being only about half as high as the inner wall; while toward the centre rise loftier towers which may belong to an acropolis like that at Sindjirli. The upper part of the walls, with their tooth-like battlements, appear to have been of wood: their lightness of construction and foundation limited the number of their defenders, usually archers. By these Assyrian reliefs the plan and arrangement of Sindjirli are fully explained. We even find grounds here for agreeing with Dörpfeld in believing the pier-like projections at Hissarlik to be also towers instead of mere buttresses.

The lower city, enclosed between the walls, is entered by three gates, each flanked by two strong projecting towers, so that six towers guard the gates and 94 the walls. The main gate is directly south of the acropolis, the others at about equal distance on either side. Between the S. and the W. gate are 25 towers; between the S. and the N. gate, 32; between the W. and the N. gate, 37. Each tower is, of course, double, on account of the double wall. At the gates a small court is formed between the walls, to facilitate defense in case the outer gate be forced. The origin of a city-plan like the present should be sought not in a mountainous country like Greece but in a flat land like the valley of the Euphrates.

Construction.—The walls are all built of unburnt bricks on a foundation of chirite. They are strengthened internally against cracking by a diagonal network of wooden beams. In the construction of the foundations,

the larger stones are used on the outside, the interior being filled with variety of material. The facing, however, can hardly be called polygonal but an irregular form of squared blocks. The foundation rises to the ground-level; above it begins the diagonal direction following the wooden network. In the walls, from 3 to 6 met. thick, beams a foot thick are placed one foot apart; in walls of lesser thickness slenderer round wooden ties are placed at distances from one another equal to their diameter, even in walls only one metre in thickness. The spaces between the beams are filled in with small stones and earth, so that, in digging through the walls, are found diagonal canals in which are now and then carbonized remains of this framework. The unburnt bricks are usually 30 to 40 cent. square and 10 to 15 cent. thick, laid irregularly in about a finger of mortar. The walls are faced everywhere with clay or lime or gypsum. To guard against the destructive action of the weather on the lower part of the walls, the lower courses are, in important structures, faced or rather trimmed with upright slabs of stone which rest upon a course of flat stones: they soon became decorated with series of basreliefs—a custom that spread over the entire East.

Of decorative stonework the other most important instance is in the columns, two bases of which were found *in situ* in the upper (NW.) palace, marking the side of the porch preceding a series of halls. The method of arranging these two parallel halls is a special characteristic of Sindjirli, and is best studied in the upper palace, the latest of the four main structures. Here is a square court on two of whose sides is a small subordinate structure; on a third side an open one-columned porch and parallel with it the closed main hall and adjoining it several minor rooms. This system of an open portico on the court is still in use throughout the East, even in Syria, and is called the *Liwan*. To the NW. of the upper palace lies a smaller structure, which has likewise a portico behind the court and back of it a main hall and on either side minor rooms. The same arrangement is found in the western palace, where, however, only a part of the court and the building west of it and the portico-entrance to the northern structure have as yet been excavated. The period of this structure is the time of Tiglath-Pileser III. The same ground-plan is visible in an older structure which was destroyed and replaced by the "upper palace." Its walls were colossal in size. The front hall was enclosed by two towers measuring some seventeen metres in plan. This structure must have been for religious purposes.

History and Discoveries.—Dr. von Luschan judged that the city and acropolis were destroyed in about 550 B. C., perhaps by people of a different race that lived, at a few hours distance from Sindjirli, in a citadel built of Cyclopean walls. Since then, the ruins have been almost continually inhabited. Small objects to the number of three thousand were found,

some of which show analogies to Trojan and others to prehistoric antiquities: of a non-metal age there was no trace. A large series of weights was found, some of which would indicate a decimal system. There are seals, ornaments, arms, lamps, stamps, cylindrical stones, pearls, fibulas, needles, vases of home and foreign (perhaps even Cypriote) manufacture. The necropolis lay without the walls; only five tombs were discovered. The bodies were placed, in a crouching attitude, in earthern jars. One sepulchral chamber built of heavy dolorite blocks, and otherwise entirely empty, yielded a very important relief. The early Shemitic inscriptions found would seem to indicate that the Hittites were Shemites, but Dr. von Luschan is of the opinion that the excavations show that the Hittites are of pre-Shemitic origin, like the Sumero-Akkadians in Babylonia.

Professor Schrader dates the raising of the stele of Essarhaddon in Sindjirli between the years 670 and 668. The connection with Assyria, shown by the Assyrian inscriptions and seals found, ends with the fall of Nineveh in 607, and the monuments that can be dated belong to the flourishing Assyrian period between the seventh and the ninth century. What is earlier cannot yet be surely estimated. The inscription on the monument of King Panammu is shown, from Assyrian documents, to belong to the reign of Tiglath Pileser III (745–727). The old-Shemitic letters read merely *P-n-m-u*, the spelling being completed as to the vowels by the cuneiform inscriptions. The name of Tiglath Pileser occurs also in Panammu's inscription. Both kings came at a critical period. Tiglath Pileser saw the fall of the many small kingdoms in Asia and the foundation of a single empire. Panammu came at the close of a period of independence: his kingdom was annexed by Assyria in 723. His inscription, the second in date of old-Shemitic inscriptions, must date from 730, and is thus about 120 years later than that of Mesa. The early Shemitic inscriptions of Sindjirli will give most important material for a reconstruction of the ancient Aramaic.

The excavations are not finished as yet, and a campaign of seven or eight months is judged necessary to complete them.

Sculptures.—Among the sculptures two classes should be radically distinguished, those of native art, and the direct Assyrian importations. Essarhaddon (681–68), who conquered the whole of Syria, erected a large, well-preserved stele of victory, in shape like a short obelisk with rounded top, whose flat face is covered with a relief and cuneiform characters. The king is in profile to the right, holding in his left hand a rope by which are bound two small dwarf-like figures, reaching about to his knee, of the conquered king of Egypt, and (in even smaller dimensions) the Syrian prince. They are gazing prayerfully up at the conqueror. The Egyptian has manacles on his feet, the Syrian on his hands, and the rope by which they are held goes through their lips. The inscription speaks of the conquest of Egypt.

In contrast to this Assyrian work are the native sculptures; still they are under Assyrian influence in their general treatment. This is especially the case with two pairs of colossal lions carved in stone, which flanked the gateways at Sindjirli—one rude, the other of better art. They are impressive, with a peculiar combination of stiff archaicism and powerful naturalism. The rigid attitude shows them to be not independent but parts of a monumental structure, the naturalistic treatment of the head, shows the hand of the mountaineers. The head is not at rest but has just given forth a powerful roar, as if it had caught sight of an enemy; nose and upper lip are wrinkled, the eyes half closed, the ears drawn back, the jaws so wide open as to show all the teeth, each one characteristically reproduced. One gets the complete impression of an angry animal about to spring upon the foe. As at Kuyundjik the lions show themselves in relief as one passes through the portals. One pair of lions is of this fine art, at once impressive in its general features and careful in its details. The other pair is of ruder workmanship. That the rude style is the earlier would appear from the discovery, on one of the finer lions, that the right hind foot is left in this rude style in such a way as to show that these lions also were originally as rude as the others and that the stone was re-carved with more advanced art, reducing the lions somewhat in size. These lions are examples of the highest perfection of the art of Sindjirli.

Next to them in interest are two votive statues. As works of art they are very poor; historically their importance is unique. Each statue is accompanied by an early Aramaic inscription, already alluded to. The first campaign had yielded one statue of Panammu, king of Sam'al, as this kingdom was styled, which was set up by his son. A second one has been since discovered, remarkable for the perfect preservation of its head. The beard is in rows of curls after the Assyrian fashion, the whiskers being shaved. On the head is a round cap decorated on each side with two horns, as in Assyria.—CHR. BELGER, in *Berl. phil. Woch.*

KYPROS.

RICHTER ON CYPRIOTE ARCHÆOLOGY, ESPECIALLY AT TAMASSOS.—At the May meeting of the Archæological Society of Berlin, Dr. Ohnefalsch-Richter reported on the results of his excavations in Kypros for over ten years, especially those of Tamassos, where he made in 1889 important discoveries for the Berlin museums. The main subject of his study was to give a picture of the history of Cypriote culture and art. He first distinguishes two main periods. There being no iron in the tombs of the earliest period, he terms it the copper-bronze age. Outside of the few objects of precious metals, all objects in metal are of pure copper or of bronze containing but little tin. In the second period, iron is introduced beside bronze. As no Oriento-

Phœnician or Græco-Phœnician influence are to be detected in the earlier period, it may further be termed the *pre-Græco-Phœnician age of copper-bronze*, in contrast to the second, which is the *Græco-Phœnician iron age*. In both ages there are many groups and sub-groups, and transitions from one to the other. The period of the transition from the bronze to the iron age is fully illustrated, and partly so by objects in the Berlin Antiquarium.

The copper-bronze age falls into two main divisions. In the earliest, the potter uses no ornamentation whatever, and there is no Shemitic influence. There are close analogies to the finds of Troy=Hissarlik, to the copper age of Hungary, and to an early culture at the close of the neolithic period, during the copper age and at the beginning of the earliest bronze age, which extended across Europe, through Austria and Germany. In the second division, a direct Shemitic influence appears in the introduction of painted decoration in the vases, an influence that comes from Mesopotamia and is marked by the appearance of Babylonio-Assyrian inscribed cylinders, which reach back to Naram-Sin and his father Sargon I of Akkad (*c.* 3800 B. C.), thus giving valuable material for dating the period. In another group of this second division, two other and contemporary influences appear, one from Mykenai and Greece, the other from Egypt, about in the time between Thothmes III and Rhamses III. At its close, Hittite influence appears to begin, extending, however, far into the Græco-Phœnician iron age. The main objects of the early copper-bronze age are idols always draped and flat. The earliest, entirely or partly nude round idol in the second half and close of the bronze age has also nothing to do with the Phœnicians: it is the same as the figure of Nana=Ishtar on the cylinders from Mesopotamia. By the side of the similarities, there are still too great differences between the Cypriote and Schliemann's Trojan antiquities to allow of Dümmler's proposed identification of the population of the two places. Neither can there be any belief in an inland Shemitic aboriginal population. All the discoveries point to an original non-Shemitic people.

The Græco-Phœnician iron-culture, which begins perhaps in about 1200 and must have superseded the culture of the bronze age in about 1000, falls into three divisions. The earliest is characterized by the bronze *fibula*, which is not found before or after. For Tamassos, the most flourishing period of Cypriote Græco-Phœnician pottery is, at this time, water-birds and even primitive human figures, used together with the geometric patterns.

The second division shows a standstill in the keramics of Tamassos, in contrast to that of Marion=Arsinoë (Polis-tis-Chrysoku). On the other hand, Tamassos reaches in the sixth century a period of perfection in architecture, metal work, stone sculpture, and terracotta figures such as is hardly ever reached in later times. To this period belong the important royal tombs of stone, which in many details show an imitation of wooden

architecture [*N. B.*—A short account of the excavations of Tamassos is given on pp. 196–7 of vol. VI of the JOURNAL]. In or around these stone tombs were found a quantity of arms—iron swords of the Mycenæan and Dipylon types, bronze coats of mail with engraved representations, a helmet with complicated visor, a silver vase with a horse in relief, large bronze kettles, candelabra, engraved gems, silver and gold earrings. To the same series belong an archaic bronze figure found in 1889 in the river Pidias near Tamassos (now in the Antiquarium), some colossal statues of terra-cotta and large stone statues from the temple of Apollon-Rassaf at Frangissa near Tamassos, found in 1885.

The third division corresponds, in the necropolis of Tamassos, to the decay of Græco-Phœnician art. Statues were found only in the sanctuaries themselves, and they belong to a Græco-Cypriote art of the fourth century. A votive inscription to the μήτηρ θεῶν, by the form of the letters and the style of the statue, is proved to belong to the Hellenistic period. Important bilingual Phœnician-Cypriote-Greek inscriptions found by Richter complete historically what is proved by the discoveries in the tombs. As early as the beginning of the fourth century, and perhaps earlier, Tamassos was the capital of an independent kingdom. Some Hellenistic discoveries in the immediate neighborhood of Tamassos have confirmed this political situation. As early as 1889, some very beautiful late-Hellenic gold decorations were found which now belong to the museum of Nicosia. Roman and Byzantine remains bring the history of Tamassos down to the Christian period. Nowhere in Kypros are all periods so successively and fully represented as at Tamassos.—*Berl. phil. Woch.*, 1891, No. 24.

A SACRED HILL OF APHRODITE.—M. Ohnefalsch-Richter writes to the *Berl. phil. Woch.* (1891, No. 31–2): "I am able to give an interesting proof of the existence in Kypros during antiquity of an extensive hill-worship which was introduced into the island by the Canaanites and Hebrews of Syria together with the other primitive stone, altar, tree and grove worships. It illustrates a passage in Strabo IV, 682: ἄκρα Πηδάλιον, ἧς ὑκέρκεται λόφος τραχὺς ὑφηλὸς τραπεζοειδής, ἱερὸς Ἀφροδίτης. The site of the peak Pedalion is known: it lies south of Salamis and Famagusta and west of Kition=Larnaka. Dr. W. Dörpfeld and I discovered there in 1890, under the lee of the furthest peak, the remains of an ancient hill-cult. From the sloping plateau there rises, near the cape called *To Kao* or *Cap Græco* there rises a pointed mass of coralline limestone. From that point the rock shelves rapidly seaward, but toward the land, where the ground takes the shape of a saddle, there is set against it a life-size stone statue, and over it is a decorative *temenos*. We found a quantity of fragments of statues and remains of primitive walls. From my long experience, I know these to have belonged to the walls of the *peribolos*, which we know

to have surrounded the sacred mountain-groves and precincts, the λόφοι, ἄλση, βωμοί, τεμένη, as Jehovah commanded Moses on Mount Sinai (*Exodus*, xx, 12).

Engel (*Kypros*, i, 98) thinks it probable that the Idalian mountain-grove extended as far as the peak of Pedalion, but the distance makes this impossible, and between them are many fields, streams, and hills. It is not, however, impossible that the Idalian Aphrodite, which became famous like the Paphian, was worshipped on this sacred mount. Cypriote inscriptions have proved, for example, the worship of the Paphian in Chytroi, that of Apollon Hylates near Kourion and in the neighborhood of Arsinoë=Marion and Neapaphos, that of Apollon Amyklaios=Rassaf=Mikal in Idalion, that of Baal Lebanon in the Cypriote mountains. If it were so, it would explain a passage in Lucian (*Phars.*, viii, 716), *ab Idalio Cingraeae littore.*—*Berl. phil. Woch.*, 1891, No. 31–2.

EUROPE.

GREECE.

A Mediæval Greek Will.—M. Omont communicated to the *Soc. des Antiquaires* (*Bulletin*, 1890, p. 100) a note on a mediæval Greek will remarkable not only on account of the extreme rarity of such documents and the age and high dignity of the testator but on account of the interest of its contents. It is the will of a dignitary at the court of Constantinople, the protospathary Eustathios, who lived in the middle of the xi century. After a long theological and legal preamble, he enumerates all his real estate, and divides it between his wife Anna, his elder daughter Irene, his younger daughter Maria, and his son Romanos. These legacies are accompanied by gifts of various sums of money and special recommendations.

Then comes the detailed enumeration of all the precious objects—about one hundred and fifty—gold and silver crosses, holy images decorated with precious stones, relics and reliquaries, vases and other objects, which he had long since resolved to will to the church of the Theotokos founded by him in Kappadokia. This list of precious objects is followed by that of the books, of which there are about eighty, gospels full of illuminations and with rich covers decorated with gold and silver and enamels, manuscripts of the Old and New Testaments, service-books, collections of works of the Fathers, collections of Councils and texts of canon law, and finally some profane manuscripts, a history of Alexander, an Interpretation of dreams, Aesop's fables, two Chronographies, and a treatise on grammar. The will closes with the mention of funeral services for the testator, and with various legacies of real estate and money, and some pious foundations. The date

is 1059 A. D. The will is contained in the Coislin MS. No. 265 of the Bibliothèque Nationale.

ATHENS.—ALTAR UNDER THE PROPYLAIA.—M. Charles Normand publishes in the *Ami des Monuments* (1891, p. 57) drawings and a note on the altar uncovered in June, 1890, below the marble steps of the Propylaia on the north side, to the left. It is of tufa and rests directly on the solid rock, and is a valuable indication of the use of this region, which is somewhat obscure. It appears to be connected with the old Parthenon, burned by the Persians. The red marks upon it—either of paint or from fire—recall those on the columns and fragments of the old Parthenon.

KRETE.

DR. HALBHERR'S CONCLUSIONS.—Dr. Halbherr has found in the island many evidences of the reflex wave of Asian culture which, travelling from the eastern mainland, affected first the islands of the Mediterranean, and then, as his discoveries in the cave of Zeus on Mt. Ida tend to prove, spread to Greece. The most important of these results are numerous vases of the Mycenæan style, which have been illustrated by Professor Orsi. They are of great size, and sepulchral, and by the novelty of their position and structure furnish us with new ideas on the sepulchral rites practised at so early a date. So far, the peculiar tombs in which these colossal urns have been found in Krete belong to an ordinary rank of life; but others will, in all probability, be found, belonging to chiefs or princes. The existence of such tombs and urns in Krete was hitherto unknown, and will bear out Adler's surmise, that on this island, midway between Egypt, Asia Minor, and Greece, will be found the key that unlocks the mystery at present attending the first intermingling or conjunction of Oriental and Hellenic ideas of art.

These vases were found in *Kuppelgräber* (*θολωτοὶ τάφοι*) at Milatos and elsewhere, and show that Krete had at that date a population practising the same sepulchral rites and using the same decorative motives as their fellows on the Hellenic continent. Dr. Orsi attributes them to some Asian race, Phrygians or Carians, who can be shown to have influenced Greece in two separate streams: (1) through the islands of the Aegaean; (2) through settlements in Krete. The urns are so large as to resemble modern bath-tubs and are decorated with palmettes and fishes and ducks, all of primitive design, the colors employed being dark-red and chestnut on a buff or cream-colored ground. Though of sarcophagus-shape, they are not large enough to contain the whole body of a man, and it is surmised that at the Mycenæan epoch such urns were made to receive either the bones alone, or the half-burnt body. Hence, partial combustion must have been practised, and this will be the most ancient known instance of an *ossilegium*, but

an *ossilegium* without cremation. As for the style of the decoration, Dr. Orsi attributes it to the later stage of Mycenæan ornament, the third rather than the fourth period, when the artist, without knowledge of perspective or background, was endeavoring to represent a lake-scene in which plants and fishes and ducks appeared together.—*Antiquary*, March, 1891.

ITALY.

VON DUHN ON THE ETRUSCAN QUESTION.—On account of the interest of Frederic von Duhn's remarks on the Etruscan question in the *Bull. di Palet. Ital.* (1890, pp. 108–132) they are here abridged for the benefit of our readers, the writer speaking in the first person.

I. It has been my opinion, for fifteen years, that the creation of a science of the tombs would solve many questions regarding the civilization of ancient Italy. The basis for such a science I believe to be the fact, that in the earliest times the location and temporary alternation of burial by cremation and by inhumation, with their accompanying rites, were nowhere produced by chance, either in the Oriental or Hellenic East or in the Celtic or Germanic North. In Italy, the principal races, with their various groups, held firm to their customs based on religious convictions, until they were separated, and that, when an amalgamation took place, the funerary observances at first clearly expressed the degree of this amalgamation, and, later, it being impossible that different races in the same place should remain distinct, these observances conformed to the race which had the intellectual supremacy. Although there may be exceptions, this I believe to be the general rule. I take for granted an acquaintance with recent works on the subject, especially those by GHIRARDINI (*Not. d. Scavi*, 1881, p. 342; 1882, p. 136), HELBIG (*Annali*, 1884, pp. 108–88), BRIZIO (*Atti R. Deput. di Stor. patr. Romagne*, 1885, pp. 119–234), and UNDSET (*Annali*, 1885, pp. 5–104).

II. Primitively inhumation was everywhere used. *Cremation* was introduced, with the bronze age, into Northern Europe, among the people of India, and the Northern and Eastern Shemites. Among many peoples inhumation remained unaltered; with some cremation held a brief sway, then disappeared. Elsewhere one branch of the race adopted cremation while another retained inhumation. This was done by the Shemites of Mesopotamia as opposed to the inhabitants of Syria, Kypros, and Carthage; thus often the non-Dorians in contrast to the Dorians, the Italics north and northeast of the Apennines, and west of the Tiber and Latin hills as far as the Volsci, in contrast to those dwelling in Umbria and west of the Tiber and the Latin hills, Picenum, and in fact all middle and lower Oscan Italy, who did not adopt cremation except in a very few isolated spots and even there only for a time. Among the predecessors of the Italics, inhu-

mation was practised by the aborigines, and among the Liguri only a few adopted cremation later. The inhabitants of Italy who used cremation were the following. The dwellers in the *palafitte* of the north; the pre-Euganean inbabitants of the country of the Veneti, who succeeded the aborigines; the pre-Etruscan families east of the Panaro. All these burned the dead and preserved their ashes in urns like those of the Villanova type. In the most ancient sepulchral strata the funerary apparatus, which was avoided for ritual reasons in the tombs of the *terramare*, belongs still to the pure bronze-age, for only south of the Apennines did the Italics learn the use of iron and bronze-plate, a use which they later transmitted northward. The pre-Etruscan inhabitants also of Etruria and Latium, preserving a like kind of tomb, cremate their dead, and maintain that custom even after the invasion of the Etruscans; and, besides, they sometimes, by superior numbers or culture, forced the invaders to accept this rite.

Remarkable discoveries of such tombs according to the crematory rite have been made during the last decade, as at Livorno, Volterra, Vetulonia, Vulci, Corneto, Allumiere, Caere, Cortona, Chiusi, Orvieto, Visentium, *etc.* Excluded from this, still remains the mountainous Etruscan interior, whose centre is the Monte Amiata. In Latium, a number of such tombs for cremation have been found, notably in the Alban hills and in Rome itself. South of the Apennines, the cinerary urn of terracotta or metal was sometimes replaced by a hut-urn (*urna a capanna*). Such hut-urns have been found at Vetulonia, Corneto, Visentium, Allumiere, Rome, and the Alban hills. All these tombs for cremation both north and south of the Apennines have so much in common that no one can deny either the community of rite, or the historico-artistic and ethnologic unity. Furthermore, the earliest are evidently in the north; and thence came what appears to have been a slowly progressive immigration.

III. In BOLOGNA inhumation and cremation stand notoriously in the following relation. The pre-Italic tombs for inhumation are followed by those for cremation of the Villanova culture, which prevail for several centuries until, in about the middle of the sixth century, inhumation reappears, with the adoption, however, of funeral rites different from those of the earlier pre-Italic inhumation; and, finally, in the fifth century inhumation preponderates, as is shown by the Certosa group (cremation 130; inhumation 287), the DeLucca group (cremation 32; inhumation 79), and the rest. A similar relationship is maintained during the Gallic period, beginning in the fourth century. It results that the sudden appearance, at the close of the Villanova period, of the rite of inhumation and the gradual disappearance of inhumation coincides with the entrance of the Etruscans, who certainly buried their dead. We may conclude:—(1) the Etruscans used inhumation, at least those north of the Apennines:

(2) wherever we find, in Etruria proper, first cremation and then inhumation, we may well inquire whether the diversity should not be explained ethnologically: (3) it being admitted that the difference in rite is owing to difference of race, then the inhabitants of the Valley of the Po, the predecessors of the Etruscans in Etruria proper, and the inhabitants of Latium, especially the Alban hills, all belong to the same race.

IV. CORNETO.—The surest proof of the alternation of the Italic crematory tombs or *tombe a pozzo* with the Etruscan tombs for inhumation is found in the necropolis of Corneto. By the side of the tombs for cremation, which predominate exclusively up to about the middle of the eighth century, appear the first tombs for inhumation or *tombe a fossa*, with which are soon associated the *tombe a cassa* and *a corridoio;* while the hall-tombs (*tombe a camera*), of which these three types are the precursors, are hardly met with before the sixth century. But the tombs for inhumation do not at once and everywhere take the place of those for cremation, as was long supposed. Inhumation continues, but in a decreasing ratio, first in the old fashion in *tombe a pozzo*, then more simply in *tombe a buca*, as can be seen during several centuries at Visentium, Veii, *etc.* At times, crematory tombs are found within tombs for inhumation, as if there were a split in the family, or rather as if the dependents, of foreign race, were cremated. The well-tombs (*tombe a pozzo*) represent an advanced Villanova culture, enriched with iron and with objects in bronze plate, probably brought from the East by Phœnicians, as well as with the *fibula*, and with other objects of undoubted Phœnician character of precious metals, glass, enamels, *etc.*

The families to whom belonged the earliest tombs for inhumation (*a fossa* and *a cassa*), being along the coast, were first acquainted with many of the above objects, and their tombs therefore contain a class of objects substantially the same as that of the well-tombs but with a character at once richer and more warlike, as is shown by the Tomb of the Warrior. These trench-tombs (*a fossa*) appear to be less ancient in comparison with the greater number of the well-tombs, because in them, except in the very earliest, there begin to appear Greek imported objects, among them especially the proto-Corinthian vases and their relatives of the geometric style. The period of their appearance is determined by the beginning of Greek colonization on the eastern coast of Sicily and Campania, because this style of vase is the earliest that is found there, and retains the mastery for a long time in the Fusco necropolis of Syracuse, at Megara in Sicily, and in the earliest tombs of Kyme. In the necropolis of Selinous, founded at latest in the second half of the seventh century, these proto-Corinthian vases are no longer found, but only those of Corinthian style.

These conclusions drawn from Corneto are confirmed by the Alban necropolis, for its earliest or northern group, which is closest to the well-tombs of Corneto, is entirely without Greek imported objects, and therefore may be considered anterior to the foundation of the Greek colonies. In the southern group, on the other hand, proto-Corinthian and related vases begin to show themselves. The following deduction should therefore be added to those previously drawn; namely, that the population with the rite of inhumation, that is the Etruscan, established itself at Corneto in about the middle of the eighth century, and that it not only did not expel or exterminate the Italic inhabitants but tolerated them and even respected their tombs in constructing their own. The invaders were even influenced by the customs and worship of the conquered, and adopted, with Italic names, the cult of certain Italic divinities, such as Neptune and Minerva. Their tombs soon were distinguished from the Italic by a greater richness of contents, which, a century and a half later, displays itself most brilliantly in the tombs of Caere, Vulci, Veii, Vetulonia, *etc.*, in objects of luxury most of which were purchased or imitated from the Phœnicians.

V. Turning southward, we find that, in the Alban necropoli, cremation continued to be the rule, showing that here the Italic population remained pure. This was not the case in the northern plain. In 1889, an oak trunk was found at Gabii, hollowed out to receive a body with its decoration and funerary vases of the beginning of the seventh century. Similar use of inhumation is found in tombs of this century at Falerii and Rome, where inhumation came to preponderate during the course of the sixth century. At its close, it suddenly and completely ceased, being replaced by the tombs for cremation which Lanciani terms *sistema delle arche*, and which remains the rule up to the second century. This sudden change from inhumation coincides with the fall of the Etruscan dynasty in Rome and the subsequent struggle for liberty in which the Etruscans were banded against the Italics and the Greeks. Thus Rome, from being an Etruscan city with an Italic substratum, returned to being a city politically even Italic, threw off Etruscan yoke, customs, religion, and returned to cremation after having used inhumation for two hundred years (700–500 B. C.).

VI. Turning northward from Corneto, we find a difference in the relation of the two kinds of tombs. At the neighboring Vulci the two rites were practised simultaneously for some time, showing that its Italic population resisted the foreign invasion for a longer period than Corneto, which was their earlier conquest. Later, inhumation became the rule there. In the upper part of the valleys of the Fiora and Albegna, nearer the Monte Amiata, no ancient cinerary tombs have been found. As one ascends along the coast, the relation between the two rites shows in increasing ratio a long and effective resistance of the Italics against the Etruscan invaders. At

Vetulonia all the most archaic tombs are for cremation. It would not be correct, however, to think that Vetulonia remained Italic down to 400, for part of the contents of the famous *Tomba del Duce* of the close of the sixth century are certainly Etruscan. The habit of surrounding tombs with circles of stones is also one current in Etruscan districts, and is not used by the group of Italics who used cremation. But it is true that the *urne a capanna* and the well-tombs of the Villanova type, both purely Italic, lasted here longer than at Vulci. The Etruscans, who in this region extended their power later and more slowly, met with an Italic population of high intellectual culture, and were obliged to accommodate themselves to circumstances and to burn their dead. This adoption of foreign customs by the Etruscans of Vetulonia is especially shown by the rectangular form of the funerary box for the ashes decorated with silver, a reduction of the large wooden boxes in earlier Etruscan use. Vetulonia explains what had been observed also at Volterra, where inhumation in Etruscan *hypogea* succeeded Italic cinerary tombs without displacing them. The important fact is, that here also as in Rome there was a return to cremation: many tombs constructed on the plan of the rite of inhumation have received urns for cremation. This general fact and the uninterrupted course of cremation at Vetulonia can be explained only by admitting that there was in these localities a current from the Italic substratum powerful enough to obliterate gradually the imported Etruscan customs.

VII. The eastern section of the country gives some interesting points of comparison. The earliest tomb for inhumation (Sergardi) at Cortona is not earlier than the middle of the sixth century Only a little before this time must it have been occupied by the Etruscans in their march northward over the Apennines. More to the SE. is a country that remained essentially Italic, that part of Umbria, including Perugia, that lies west of the Tiber. Here inhumation never took root. Chiusi, the Italic Clusium, with its populous neighborhood is extremely instructive. Undset remarks: "Here in the interior of Etruria the development is entirely different from that at Corneto. At Chiusi there are no tombs *a fossa* or *a cassa*; in the *tombe a ziro* we here find the objects that characterized that class of Etruscan tombs. At Chiusi the earliest funerary rite, that of cremation, lasts longer than at Corneto; the *lekythoi* with brown lines are here often found in tombs for cremation, while in Corneto they begin to appear only in tombs for inhumation." It therefore appears that the earliest tombs for inhumation at Chiusi, those of the Pania and Fonterotella properties, need not be dated before the middle of the sixth century, and that they precede only by a little the first painted chamber-tombs. Here also we conclude that the Etruscan occupation of these regions did not happen before the middle of the sixth century.

The *canopus*, considered by many to be characteristically Etruscan, is however a cross of Italic and Etruscan influences: it is derived from the Villanova ossuary, from its bronze substitute, from the hut-urn (*urna a capanna*), and continued to be a cinerary vase during the Etruscan invasion, developing even into the shape of complete human figures. Among them, the urns are earlier, the sarcophagi later. With them are to be associated the many cinerary cases which we should regard as concessions made by the Etruscans to popular customs of the native population.

VIII. If these facts have any value, it must be admitted:—I. that in Etruria the great longitudinal valleys, as well as the coast-line, were originally occupied by the same Italic races that dwelt in the country north of the Apennines and in Latium: II. that about the middle of the eighth century, perhaps a little before, the Etruscans appear, first at Corneto and in its neighborhood to the south, east, and northeast; that in about 700 they invade Latium and hold Rome until about 500, and perhaps for the same period the entire region up to the Alban hills, but with an insecure hand: III. that at the same time, perhaps about 700, they extend northward toward Vulci, and in the first half of the century push beyond Vulci northward up to Vetulonia and Volterra. Only in the following century do they extend themselves eastward, first from Volsinii (Orvieto), which they had previously occupied, northward in the Valdichiana to lake Trasimeno (occupying Perugia still later), in the upper valley of the Arno, and thence by the Futa pass to Bologna, *etc.* The nucleus of the national Etruscan power and genius was in the south, in the country extending from Monte Amiata southward to the Tiber. The land south of the river was only occupied temporarily by them, and that to the NW., N. and E., occupied at a later date, though politically subject to the Etruscans, never completely became an Etruscan possession.

Reference may here be made to a passage of Dionysios in the history of Tarquinius Priscus. The Latins, when menaced by the Tarquins, sought aid, against these Etruscans, from the Sabines, their Italic relatives, and from the *Tirreni*, five of whose cities came to their aid: Clusium, Arretium, Volaterræ, Ruscellæ and Vetulonia. This seems natural, now that we know that toward 600 these cities were just those that still remained Italic. After the Etruscans had gained possession of these cities, Porsenna made his attempt to reestablish the Etruscan power in Rome, and its failure made of the Tiber the regular boundary between free and Etruscan Italy.

IX. It is not my purpose to speak of the origin of the Etruscans, nor do I believe in the simple hypothesis of the emigration of an entire nation by sea. The chronologic computation of the Etruscans embraces a plan that could be used only when the nation was concentrated, when each member was known to the other and to the priests. Its calculations would

lead us to fix on the middle of the eleventh century as the period in which the invading Etruscans established themselves in the heart of the region afterwards called Etruria. It is not surprising that nearly three centuries of pacific development passed before the Etruscans felt the need of extension, and did so, as was natural, by following the valleys that led to the sea in order to gain the coast. It is possible that they originally came from the east; but it is impossible to decide whether they entered Italy before the Italics and were thrust southward by them into the hilly Etruscan interior, or whether, arriving after the Italic tribes, they opened a way through them.

AREZZO=ARRETIUM.—AN ANCIENT WELL.—Outside the walls of Arezzo, to the NE., about ten metres within the old Etruscan walls, Sig. Occhini has discovered and explored an ancient well. It was covered by a large slab, 1.30 met. wide. It grew wider as one descended, taking the form of a long wine *amphora*. Below the depth of fourteen metres, many vases were found. The upper ones were of ordinary style belonging to the late Roman Empire, usually urns with one handle and projecting lip, of which more than fifty were found. With them were four copper pails with high iron handles badly oxydized, varying in shape and in size from 19 to 24 cent. At a depth of between 17 and 18 metres was found a beautiful bronze pitcher which was originally gilt. Its height is 21 cent., width at mouth 9 cent., with an elegant handle ending in the middle of the vase in a head and bust in relief of a female divinity identified with Diana by the quiver over the right shoulder. Its artistic style refers it to the first century of the Empire. At the bottom of the well lay a brilliant copper pail with a bronze handle ending in a goose-head, turning over the edge between two projections and decorated where they join the vase with a vine leaf in relief. This is Etruscan work of the second or third century B. C. The pail rested on three small bronze bases soldered to it, and is of large size, 25 cent. high, 19 cent. diameter. Also in the bottom was found a large iron key, 30 cent. long, similar to another found in an Etruscan fountain near Arezzo. A third key of bronze was found in an Etruscan well near Chiusi. A fourth of silver and of great beauty was found at Brolio (Valdichiana) among Etruscan objects. Comm. Gamurrini suspects that on the destruction or de-consecration of a temple, the key was cast into a neighboring well or fountain as something sacred that should not be used. This conjecture is favored by their great size and elaborate form. Also in the bottom were two lamps, one of earth, the other, very elegant, of thin copper; two leaden shells, probably for coins; a votive bronze tablet with a figure scratched. Only a few coins were preserved, such as one of Hadrian and one of Maximianus. Further proof of the existence, in this neighborhood, of a small temple was given by a chanelled colonnette of

travertine that may have belonged to its *pronaos*, and some fragments of terracotta *acroteria* ending in palmettes and of antefixes with heads; also remains of white tessellated mosaic, and many pieces of *aes rude*. Probably the temple was dedicated to Diana, as was indicated by her effigy on the bronze pitcher.—*Not. d. Scavi*, 1891, pp. 159–60.

ODERZO (VENETIA).—MOSAIC PAVEMENT.—In February, a polychromatic Roman mosaic-pavement was found in a field near Oderzo. It is 6.70 met. long, 4.06 met. wide at one end and .2 met. at the other. Its border consists of four successive zones of Greek pattern of varied design. It is divided lengthwise into three zones, each of which has three subdivisions across the width. In the upper zone on the left (2.70 wide, 1.30 high) is a hare followed by a hound while the fore-part of another hare emerges from a bush, and there appear the head of one horse and the hindquarters of another. The composition in the middle of the upper zone (1.95 long, 1.30 wide) represents an enclosure surrounded by walls with a portico at the end and an open door in the centre, within which is a woman feeding two geese and two hens. The composition on the right (1.30 wide, 1.60 long) represents that kind of bird-snaring which is called *a civetta con panione*. The owl is half hidden in a bush, and above it are six birds, three of which are caught in the snare. Owl and birds are admirable in coloring and design. The lower zone is almost entirely destroyed. There remains only a man armed with a lance, facing a boar, then an arm and the legs of two figures. The technique of the work is delicate, and the colors fresh and bright.—*Not. d. Scavi*, 1891, p. 143.

ROMA.—SARCOPHAGUS.—In digging for a drain on the Via Salaria near the gate, was found a marble sarcophagus. Its front is striated: in the central shields are two busts, the heads being only roughly sketched, representing a senator (with toga decorated with *trabea*) and his wife. Below them are two shepherds; one seated, milking two goats, the other standing, leaning on his crook and playing on the pipe. At each corner is a fine single figure in high relief—on the right, a bearded man in pallium; on the left, a woman in tunic and pallium. On the sides are the usual guardians of the tomb, the griffins.—*Not. d. Scavi*, 1891, p. 166.

SAN MARZANOTTO.—A ROMAN NECROPOLIS.—Traces have been found, in the territory of San Marzanotto in Liguria, of a necropolis of the Roman period in which the rites of both cremation and inhumation were used, and which was in use for several centuries, as is shown by coins ranging from Augustus to Constantine II.—*Not. d. Scavi*, 1891, pp. 144–5.

TONTOLA (near Forli).—A pre-Roman tomb found in Tontola, 22 kil. from Forli, yielded a number of vases, some of which are similar to those found in Gallic tombs; nearly all were of black varnish, a few with light-green. They were arranged about a skeleton.—*Not. d. Scavi*, 1891, pp. 145–7.

SWITZERLAND.

BASLE.—DR. BURCKHARDT, of the Basle Museum, has lately rediscovered a collection of over a hundred wood-blocks by Albrecht Dürer that have been lost sight of for some years. Three of the blocks have been cut; the rest, which were evidently intended for a book which was never published, are uncut, and are each about fifteen centimetres by nine. One larger block is signed at the back by Albrecht Dürer, with his name in full; the rest are without signature or monogram.—*Athenæum*, Oct. 11.

GENEVA.—MUSEUM AND PICTURE GALLERY.—M. GUSTAVE REVILLIOD has left, by his will, to the city of Geneva a museum which he built and filled with works of art at the expense of four millions of francs. It is at the city-gate and is called *Musée de l'Ariana.* It contains works of painting and sculpture, ceramics, metal, ancient furniture and rare books. The city also receives a gallery of paintings, valued at several millions, left to M. Revilliod, a few hours before his death, by Mme. Fleuriot.—*Chron. des Arts*, 1891, No. 1.

VEVEY.—The workmen engaged upon the sewerage at Vevey have unearthed, near the church of St. Clara, a bronze statue of Neptune in excellent preservation. The *Feuille d'Avis de Vevey* observes that this spot was the centre of the ancient Vibiscum. In 1777, when the church of St. Clara was being "restored," the workmen excavated a Roman altar of white marble with the inscription DEO SILVANO.—*Athenæum*, Oct. 18.

GERMANY.

ROMAN WALL.—*A complete excavation of the Limes Romanus.*—At Heidelberg, a meeting took place on the 28th ult. in the University Library between the representatives of Prussia, Bavaria, Würtemberg, Baden, and Hesse, as also of the Academies of Berlin and Munich, in consequence of the commission received from the five German governments for united excavation of the Roman boundary-wall, which bears so close a resemblance to our own Northumbrian *vallum.* Amongst those present was Professor Mommsen; and two directors (one military and the other an archæologist) were determined on, and a period of five years was fixed for the termination of the work.—*Athenæum*, Jan. 10.

The projected excavation of the *Limes Romanus* will be carried out by the combined efforts and subsidies of the five German governments through whose territories it passes, in as thorough and comprehensive a manner as possible. During the five or six years required for the work the course and direction of the earthen wall will be accurately determined, and its construction, design and front view will be studied, when possible, along its entire length; as also, by means of excavation, the *castella*, towers, gates,

and bridges where the barrier went across the river. Research will also be directed to any Roman buildings or their remains contiguous to the wall or forts (*castella*), as the *scholæ*, baths, the springs utilized, wells, *etc.*; and then to the Roman stations near the *vallum*, the ancient roads running alongside or in connection with the *Limes*. All antiquities found in the excavations will belong to the several states in which they are respectively found; but plaster facsimiles will be made of the principal objects and placed in the museum at Mainz. The results of the undertaking will be published yearly.—*Athenæum*, Feb. 14.

BERLIN.—THE GERMAN ARCHÆOLOGICAL SOCIETY IN BERLIN.—*July Meeting.*—The papers read were as follows: KEKULÉ, *The form and decoration of the earliest Greek and the pre-Greek vases.*—TREU, *Male torso found at Olympia in 1878* (*Ausgrab.*, III, pl. 17 [b], 2). By means of a better-preserved replica in the Dresden collection (Clarac, 549, 1156), this torso is shown to be an Asklepios, and an Attic work of the close of the fifth century and of the school of Pheidias. It may be a replica of the Asklepios of Alkamenes; but at all events it confirms Overbeck's idea that the classic type of Asklepios originated in the school of Pheidias.—POMTOW, *A three-sided base at Delphoi.* Of this base and its inscription five blocks and eleven small fragments have been found. The inscription, in Ionic dialect, indicates that the monument to which this base belonged was a replica of that dedicated by the Messenians with the Nikê of Paionios: this would illustrate the close relation between the two religious centres of Greece, Olympia and Delphoi.—WINTER, *The relation of the Mycenaean monuments to Egyptian and Hittite art.* He believes the Mycenaean civilization to have originated in Syria and to have flourished between 1600 and 1200 B. C. As an illustration of Egyptian influence, a Cypriote bowl is mentioned wrongly described as Phœnician: its fantastic figures, as well as those on some Island-stones and a Tiryns painting, are adaptations of the Egyptian sacred hippopotamus Thueris. Hittite influence is asserted not only in details of arms, hair, *etc.*, but also in composition.—TRENDELENBURG called attention to the description of the *Mausoleum of Halikarnassos* in Pliny, XXXVI. 30 *sqq.* He seeks to accord Pliny's measurements with the reconstruction of the remains of the monument, and to make further suggestions from the text. He is opposed to a heavy, high basement, and thinks that the singularity of the monument arose in its pyramid being supported on a peripteral chamber.—*Berl. phil. Woch.*, 1890, Nos. 35, 37.

DRESDEN.—THE MUSEUM OF ANTIQUES.—A number of additions to the museum may be chronicled. A mummy-portrait from the Fayûm, from the Graff collection, interesting as showing a rough tempera portrait of a man painted over a beautiful encaustic portrait of an old woman. Prince Fred. Augustus has donated two Palmyrenian tombstones with late Roman

portraits and inscriptions. A large number of terracottas from Myrina and Tanagra have been purchased, also some gold decoration from the Fayûm. The collection of casts will soon be reöpened in its new quarters, the Albertinum, with many notable additions.—*Berl. phil. Woch.*, 1890, No. 35.

KREIMBACH.—THE HEIDENBURG.—The excavations carried on by C. Mehlis in the "Heidenburg" near Kreimbach are described by him in detail in the *Berl. phil. Woch*, 1890, No. 45. It is undoubtedly a late Roman fortress. Parts of its western, southern, and northern walls were uncovered. Among piles of refuse and small objects found by them were about sixty bronze coins, especially of Constantine, while some were of Magnentius and Constans as well as of Postumus (259–68). Of the bronze ornaments found many were quite well executed. The vases all belong to the period between the close of the third and that of the fourth century A. D.; some of them show decorative motives which were afterwards characteristic of the Merovingian period. These discoveries, together with those of Heidelsburg, Obrigheim, Eisenberg, Ungstein have brought to light a series of objects such as must have been the means of connecting directly the ornamentation of late Roman pottery with that of the Merovingian period. An account is given of various remains of architecture and sculpture, graves, coins, *etc.*

An account of the results of further excavations begun on Sept. 17. Their object was the systematic clearing of the west side where nothing had been done except to search for graves. The wall was found to be continuous, and in connection with it was found a votive inscription of the second century A. D. At the SW. corner was a square tower. The usual number of potsherds and coins came to light.—*Berl. phil. Woch.*, 1890, No. 47.

STRAUBING.—At Straubing, in Bavaria, some Celtic tombs have been opened, and found to contain most interesting bronze ornaments and iron weapons belonging to the people of Rhætia before the Roman conquest. The long-sought-for Roman cemetery has also been discovered—through the unearthing of a Roman tomb containing cinerary urns—flanking the old military road from Serviodurum (Straubing) to Abusina, both situated on the Danube.—*Athenæum*, Nov. 22.

TRIER.—An interesting series of objects found in excavations at Ehrang, near Trier, have been added to the museum of that city. They include a statue of Wotan; a sword and an urn; an equestrian statue that probably formed part of a votive column consecrated to the contest of Wotan and Jupiter. The socle of the statue and a capital have been found, the former being decorated with figures of gods.—*Cour. de l'Art.*, 1890, No. 35.

AUSTRIA-HUNGARY.

ALTENBURG=CARNUNTUM.—DISCOVERY OF AN AMPHITHEATRE.—Professor Hauser, under whose direction the Carnuntum excavations are carried on, had for a month past observed the color of an extensive cornfield,

which varied in every part. He found an elevated post of observation, and, after a week's close attention, declared it to be his opinion that the cornfield was growing over the site of an ancient amphitheatre. His drawings showed that the oblong centre piece was somewhat concave, and the corn was quite ripe in that part, because there was much soil between the surface and the bottom of the theatre. Elliptical lines of green, growing paler the higher they rose, showed the seats, and lines forming a radius from the centre showed the walls supporting the elliptical rows of seats. The professor waited impatiently for the corn to ripen, and the moment it was cut the excavations began. They have shown that the almost incredible suggestion was perfectly correct. Six inches below the soil the top of the outer wall was found, and from there the soil gradually grew thicker until the bottom of the arena was reached, the pavement of which is in perfect condition. From the theatre a paved road leads to the Camp of Carnuntum. As soon as the theatre has been entirely freed of the soil covering it, all the measurements will be taken, and it will be ascertained what arena it is.—London *Times*, Oct. 4, 1890.

GALLICIA.—PALÆO-ETHNOLOGIC RESEARCHES.—The October-1890 number of the Cracow *Bulletin* reports on G. Ossowski's review of palæo-ethnography in Gallicia. He distinguishes three archæological zones, one western, that of Cracow, and two eastern, those of Leopol and Podolia. His investigations were directed to: (1) CAVERNS; at Stradecz (dist. of Grudek), Rosolin (dist. of Lisko), Urycz (Stryj), Kozary and Sarnki (Rohatyn); all except the last two being of especial interest. (2) PREHISTORIC STATIONS; at Zabince (Husiatyn), Zablotce, Hucisk and Wysock (Brody); all of which were recognizable from their fragments of hand-made vases, and objects in bone, silex, glass or bronze. (3) TUMULI, which are a peculiarity of the zone of Leopol. Several of these he has excavated (*a*) at *Tenetiki* (Rohatyn) four tumuli for cremation, in which he found several undecorated funerary earthen vases containing bones: (*b*) near *Uwisla* (Husiatyn) where out of three tumuli he tried only two, and only in one was a skeleton found; also a vase with a handle and some decoration and a discoïdal pearl of yellow amber: (*c*) at *Zablotce*, a tumulus with three unburnt skeletons laid on stone slabs. (4) TOMBS FOR INTERMENT, two of which were in the village of Uwisla: one contained, under an immense stone slab, a male skeleton of dolichocephalic race. (5) TUMULI FOR CREMATION: of this variety is a peculiar prehistoric cemetery opened in the village of Wasilkowee (Husiatyn), which covers several hundred square metres, The tombs are all placed under a continuous layer, 40 cent. in thickness, of formless earthen bricks. The vases found are in their decoration like the painted vases of Horodnica described by Kopernicki.

DENMARK.

COPENHAGEN.—NEW MUSEUMS.—There are at present being erected in Copenhagen a new Meteorological Museum, a Polytechnic Institute, and the great Museum of Arts, in which the valuable collections from the late Christiansborg Palace are to be placed. Also arrangements are being made for the erection of a new museum of arts and industries.—*Builder*, Aug. 30.

TURKEY.

DOBRUTSCHA.—TRIUMPHAL MONUMENT.—M. Geffroy announced, to the meeting of the *Acad. des Inscriptions* of Jan. 23, that M. Tocilesco, former member of the *Ec. prat. des hautes études*, had discovered at Dobrutscha a triumphal monument erected by Trajan in 108 or 109 A. D. Some of the sculptured trophies represent barbarian prisoners in chains.—*Ami des Mon.*, 1891, p. 105.

SALONIKA.—DAMAGE TO THE CHURCHES BY FIRE.—We quote from the *Times* the following report, received from the architectural students of the British School at Athens:—

"Salonika, October 28, 1890.

Church of St. Sophia.—"Of the many churches of Byzantine times still remaining in Salonika, that of Saint Sophia is the only one that has been at all affected by the recent fire. The report that it had been destroyed is entirely unfounded; and, although a good deal of irreparable damage has been done, the building is still structurally sound and capable of being repaired. None of the original work of the church has been injured, except the marble pillars and the fine carved capitals of the arcades dividing the central area from the aisles and galleries; of these only three of the lower arcade on the north side have escaped injury, the others are more or less irretrievably damaged. And this is partly due to the large accumulation of public records, which had been stored in the southeast corner of the building, having been all consumed in the fire. The lead covering of the main dome has been somewhat injured, and all the roofing, which was of wood covered with lead, has been destroyed. This, however, was not of Byzantine times, the external appearance of the church having been much altered by the Turks, who raised the aisle walls to a uniform level all around, and covered in the whole building with a new roof, sloping up to the sides of the central dome and entirely hiding many of the main structural lines. The open colonnade along the west front, which was also added by the Turks, has been in part destroyed, and the conical roof of the minaret has been burnt off and some damage done to the staircase in its interior. The northwest turret, usually assumed to be of Frankish times,

is practically intact, only a few tiles having fallen from its roof; but the wooden porch and staircase built by the Turks against the south door of the narthex have been entirely destroyed.

"The heat of the fire has loosened the plaster from the walls in many places, exposing interesting points of detail which were before invisible. In particular, one important point which we now see clearly is the evidence of the existence of at least five large openings in the west wall, and in two of these openings remains of frescoes covering the soffits of the arches through the whole thickness of the wall, thus showing that the openings had not been filled in with doorways, and that an exonarthex must have existed, which may have been removed by the Turks when they built the present colonnade. It is now possible also to identify most of the original Byzantine round-arched windows which the Turks had built up or filled in with square stone frames.

"The mosaics seem practically uninjured. They are at present very indistinctly seen through a thick coating with which the smoke of the fire has covered them. In the mosaics of the dome, the subject of which is the Ascension of Christ, we can now see that the faces have all been picked out by the Turks; but otherwise they are in their original condition, although there are some traces of later restoration on the band of flowers and fruit which runs round the lower part of the subject.

"We found the drawings of this church, which were published by Texier and Pullan in their *Byzantine Architecture*, to be very inaccurate and misleading; and we therefore considered it desirable to take advantage of the present circumstances to make a new and complete survey of the whole structure and carefully record all the new evidences which the effects of the fire have revealed.

Church of St. George.—"The round church of St. George, now known as the Orta Sultan Osman Mosque, has lately undergone a complete restoration and renovation. The fine mosaics of its cupola, which were in a very dilapidated condition, have been repaired and completed in paint by an Italian, who has supplied the parts which were wanting, largely from his own imagination, and consequently their historical and artistic value has greatly suffered. Many structural details formerly visible have also been filled up or covered with whitewash.

"*Of the other Byzantine churches* in Salonika, it is only necessary here to say a few words. They remain at present undisturbed, and, unless they too come under the destructive influence of a great fire, are likely to last through many future generations. Here, again, the Texier and Pullan drawings are very incomplete; and it would be a matter for extreme regret, in the event of anything happening to these churches, that full and

complete records had not been made.—ROBT. WEIR SCHULTZ, SIDNEY H. BARNSLEY, *Academy*, Nov. 22.

RUSSIA.

THE ORIGIN OF ENAMELS IN EUROPE.—M. le baron de Baye called the attention of the *Académie des Inscriptions* (April 25) to decorations of enamelled bronze that were recently found in the government of Kalouga and which were exhibited at the recent archæological congress at Moskow. This discovery is said to throw a new light on the origin of enamelling in European art [It is not said whether these are *Champlevé* encrusted enamels, as is probable].—*Revue Crit.*, 1890, I, p. 359.

KERTSCH (CRIMEA).—GREEK PAINTINGS.—In the neighborhood of Kertsch, famous for the discovery of magnificent and numerous pieces of ancient jewelry some thirty years ago, a further discovery of interest is reported. It is a tomb consisting of three compartments, discovered 14 ft. under the surface. The walls are covered with frescoes representing divinities and scenes of ancient Greek life. They are accompanied by an inscription in archaic Greek letters.—*Cour. de l'Art*, 1890, No. 40.

DISCOVERY OF A CATACOMB.—Laborers in a quarry near Kertsch have discovered a catacomb with a number of inscriptions, emblems, and frescoes. It is in the form of a great hall cut in the rock, supported by thirteen pillars artistically ornamented. One of these pillars bears the following inscription: "The Judge Sorak built this sanctum without removing the human bones found on the spot. May no one touch or desecrate my body, as he who does so shall not enter the realm of the spirits."—*Builder*, Aug. 30.

PODOLIA.—PREHISTORIC RESEARCHES.—The *Bulletin* (Oct. 1890) of the Academy of Sciences of Cracow reports on Casimir Pulawski's archæological researches in Russian Podolia, which describe in detail two prehistoric tombs discovered not far from Kamieniec in the village of Zawadynce, 25 kilom. from Husiatyn. One was a tomb for interment, without covering-slab, containing a clearly dolichocephalic skeleton unaccompanied by any object. The second was a tumulus, found in another part of the same village, containing two skeletons: by the side of one of these was a small plain earthen hand-made vase, a bone awl, a small hatchet, a knife, two arrowheads, and fragments of silex instruments, which indicate the neolithic period.

Cz. Neyman describes a cemetery near the village of Bolhane (dist. of Olhopol). It contains 31 tombs in two groups: the four that were opened were each surrounded by a stone belt composed of a double row of large slabs. A peculiarity was the protecting of some of the bodies by placing over them hollowed-out oak trunks. Objects in bronze and iron were found.

GREAT BRITAIN.

BIRMINGHAM.—ADDITIONS TO THE MUSEUM.—MR. SAMUEL JEVONS of Birmingham has given to the Art Gallery of that place a collection of illuminated manuscripts, printed books, and carved ivories, which fill two large cases in the Italian Gallery and Industrial Hall of the museum. The books range from the XIV to the XVIII century, and illustrate the development of the typographic craft from that of calligraphy. The ivories include Japanese examples, Christian diptychs and triptychs, and French, Russian, German, and English instances of various kinds.—*Athen.*, Dec. 27.

CASTLE CARY.—EXCAVATIONS.—The *Western Chronicle* says that the excavations at Castle Cary have been steadily pursued, and now the foundations of the keep of Cary Castle are sufficiently exposed to enable an accurate ground-plan to be made. This plan shows, beyond doubt, that the Castle was about 200 yards to the southwest of the position where it has been generally supposed to have stood, and where its site is marked on the latest ordnance map. The Castle is seen to be, not an ordinary "shell keep," but a strongly-built fortress of unusually large dimensions and thickness of walls, the outer wall being 15 ft. thick. The keep is nearly complete, but the walls of the inner and outer baileys are yet to be discovered.—*Builder*, Sept. 20, 1890.

CHESTER=DEVA.—EXCAVATIONS IN THE NORTH WALL (*cf.* vol. VI, p. 398).—During some repairs, made in Dec. 1890, to the north wall, to the west of Northgate, excavation was continued. It was soon apparent that, as was the case on the other side of Northgate, the wall was full of Roman remains, consisting of inscribed and sculptured monuments, portions of Roman buildings, *etc.* Seven inscribed stones (either whole or fragmentary) were at once unearthed, together with four pieces of sculpture. Two of these are particularly noteworthy. Hitherto, only one sepulchral monument of any *equites*, or Roman horse-soldiers, belonging to the twentieth legion, stationed at Deva (Chester), have been found; but here were two monuments to soldiers of this class, in one of which the soldier is shown on horseback: one of these has the inscription still perfect, whilst in the other it is at present missing.

ROMAN INSCRIPTIONS FOUND IN 1890.—1. Tombstone with inscription surmounted by fragment of a relief representing a horseman. D(*is*) M(*anibus*) | C . IVL(*ius*) SEVERVS | EQ(*ues*) LEG(*ionis*) XX V(*aleriae*) | V(*ictricis*) VIXIT AN(*nos*) | XXXX. 2. Relief of a horseman riding over a fallen enemy, well preserved; underneath an inscription, of which only the first line D . M . is left. 3. Tombstone with inscription surmounted by fragments of two figures, one certainly, the other probably, female. The whole is much broken. VOCONIAE C . VA[*l*(*erius?*)] VICTOR | NIGRINA. Possibly C. Va[l].

Victor was husband of Voconia, but the inscription appears never to have been completed: certainly no more is visible. 4. Tombstone with inscription surmounted by the lower part of a "Funeral Banquet" relief. D(*is*) M(*anibus*) | RESTITAE V(*ixit*) | AN(*nos*) VII ET M | AR. . .(?) V(*ixit*) AN-(*nos*) III. . . 5. Fragment of tombstone, with few fine letters. 6,7. Fragments.

Besides these inscribed relics, some pieces of sculpture (all seemingly sepulchral) have been found, and some coping stones and other hewn work. All but two or three pieces are of red sandstone; the exceptions are of a whiter stone, resembling that used for the moument of M. Aurelius Nepos and his wife, now in the Grosvenor Museum. It appears, therefore, that the part of the north wall from which these stones come has contents very similar to the part examined some three years ago. The lettering of Nos. 1 and 4 seems to be later than that of the majority of the previous finds, but arguments based on lettering are at all times to be used with caution.—*Athenæum*, Dec. 13, 1890.

EXCAVATIONS IN 1891.—Since February, the work has gone on uninterruptedly. About 100ft. of the wall to the west of the northgate have been opened and thoroughly explored, without much disturbance of the face of the wall. Altogether some twenty-five inscriptions and funeral sculptures have been taken out, together with a number of other carved and worked stones. One centurial stone has been found, and this probably came from the first Roman wall of Chester, which would be pulled down when the area of the town was enlarged. One of the inscriptions commemorates an *optio*, or sub-centurion, who perished by shipwreck; another refers to the honorable discharge, *honesta missio*, of a soldier who was released from service; whilst a third was erected to a freedman by his former master.

ROMAN INSCRIPTIONS FOUND IN 1891.—Of the inscriptions found all but one are tombstones. 1. [*Dis Manibus . . .*] OPT[*i*]ONIS AD SPEM | ORDINIS CENTVRIA LVCILI | INGENVI QVI | NAVFRAGIO PERIT | S(*itus*) E(*st*). The phrase *ad spem ordinis* occurs several times in inscriptions, denoting that the dead man had been eligible for or expecting his promotion. In this case he was cut short by shipwreck, perhaps in the estuary of the Dee. 2. Inscription of one G. Valerius, badly mutilated. 4. D(*is*) M(*anibus*) S(*acrum*) | GABINIVS FE|LIX MILES L|EG(*ionis*) II AVG(*ustæ*) . . . | [? *vix*]SIT AN(*n*)IS | XXXX | H(*eres*) P(*onendum*) C(*uravit*). 5. Red sandstone figure of an *optio* with staff and "tickets" with the inscription: D(*is*) M(*anibus*) | [? *C*(*a*)*e*]CILIVS AVIT|VS EMER(*ita*) AVG(*usta*) | OPTIO LEG. XX | V. V. ST(*i*)-P(*endiorum*) XV VIX(*it*) | AN(*nos*) XXXIV | H(*eres*) F(*aciendum*) C(*uravit*). Emerita is the modern Merida in Spain. 6. D(*is*) M(*anibus*) | CASSIVS SECVN|DVS MISSVS HO|NESTA MISSIONES | VIX(*it*) AN(*nos*) LXYX . . . | CO . . . 7. DIS MANIBVS | D. CAPIENI | VRBICI VOL|TINIA (*tribu*) VIENN(*a*) | SIG . . . STI|PEND(*iorum*) XXIV | ANNOR(*um*) XLIV | H(*eres*) F(*aciendum*) C(*uravit*).

9. D(*is*) M(*anibus*) | ETACONTIO | LIBERTO BENE | MERENTI C. ASV|RIVS FORTI(*s*) PATR|ONVS EIVS POSVIT. 14. D(*is*) M(*anibus*) | C. IVL(*ii*) MARVL|-LINI B(*ene*)F(*iciarii*) TRIB|VNI VIXIT | ANNIS XXXXV | H(*eres*) F(*aciendum*) C(*uravit*).

Besides these inscriptions, several sculptures have been found, partly sepulchral figures, partly, perhaps, from some building. The details of these would, however, have little meaning without drawings.—F. HAVERFIELD, in *Athenæum*, April 25, May 16, 1891.

COLCHESTER.—At the Feb.-4 meeting of the Brit. Arch. Assoc., Mr. J. M. Ward exhibited a series of Roman earthenware vessels and fragments which have recently been found at Colchester outside the circuit of the Roman walls. Among these were some portions of vessels of Samian ware having patterns of great beauty, and the handle of an amphora inscribed with N and T conjoined and the name C ANTONI. . . Mr. Way pointed out that some of the patterns on the Samian ware were identical with several found in London.—*Athenæum*, Feb. 14, 1891.

DORE.—REMAINS OF A CISTERCIAN ABBEY.—Some curious finds were recently made when cleaning out two watercourses on the north of Abbey Dore in Herefordshire. The dormitories and domestic offices of the Cistercians who built it were on this side of the church, and doubtless many more singular relics would be recovered were a thorough investigation made. Nine old keys—probably of stables, granaries, and the like—were picked up. A keen-edged pointed dinner knife was also found, and three coins: one a silver groat of Elizabeth; the second a fine specimen of a copper sixpence of James II, dated 1689; and the third a copper halfpenny (?) bearing the legend NVMMORVM FAMVLVS, probably of William and Mary. A quantity of hewn stones and fragments, which had formed part of the conventual buildings, were also dug out. The keys and coins, together with the knife, are carefully preserved by the owner of the land, Capt. T. Freke Lewis, of Abbey Dore. The fine Cistercian church here is still used as the parish church, being the only Cistercian church so used in England. —*Athenæum*, Feb. 14, 1891.

EDINBURGH.—COLLECTIONS OF THE SOCIETY OF ANTIQUARIES.—The archæological collections of the Society of Antiquaries of Scotland are being removed from the Mound, Edinburgh, to the large premises provided for them in the eastern portion of the Scottish National Portrait Gallery in Queen street.—*Academy.*

KENILWORTH.—EXCAVATION OF THE MONASTERY.—The *Coventry Herald* reports that these excavations (see vol. VI, p. 399) are now completed. The nave and north transept of the long-buried church have been cleared. Two stone figures, found during the excavation, have been built into a retaining

wall erected to preserve the adjoining cemetery. The south transept, chancel, and chapter-house are still unexcavated.—*Builder.*

LINCOLN.—ROMAN PORTICO.—An important discovery of Roman remains has been made at Lincoln in April, 1891. It will be remembered that in May, 1878, the bases and shattered shafts of three pillars of the Doric order, with a singular twin column of two inosculating shafts at the northern angle, were laid bare in digging the foundation of a new house in Bailgate, to the north of the central point of the Roman city. Nine years later, January, 1887, the pulling down of the houses adjacent to the south revealed the bases of three more columns on the same straight line. It was concluded that these were all that were to be found, and that they were the remains of a hexastyle portico, forming the front towards the street of a large building, of which the end wall (known by the name of "the Mint Wall") exists at the distance of 270ft. to the west, figured by Stukeley in the last century, and supposed by him, without any adequate evidence, to have been a Roman granary. In April, 1891, however, a discovery was made which alters all preconceived ideas as to the magnitude and character of this building. In laying down a new water-main in Bailgate, which runs on the line of the main street which intersected the Roman city from north to south, the workmen came upon the bases of four columns, ranging accurately with those already described, and identical with them in mouldings and general character. With the six previously discovered the number now amounts to ten, and there is no doubt that two more would be discovered in the interval yet unexcavated, between the last of the former range and the first of those now brought to light. This would give a colonnade of twelve columns. How many more still remain to be discovered to the south is uncertain, but from the configuration of the Roman city it would appear that there is room for one or two more before reaching the street running westwards from the central point, where the Roman milestone, now preserved in the Cathedral cloisters, was found some years back. This discovery proves that the building occupying the northwest angle of the northwest quarter of the city must have been of great size and stateliness. The façade must have extended for a length of at least 160 ft.—*Athenæum*, April 18, 1891; *cf. Academy.*

LONDON.—THE ROMAN WALL AND DITCH OF THE CITY.—During the excavations necessitated by the erection of the new Post Office buildings by the side of the ancient site of Aldersgate, one section of the ground taken close to Aldersgate Street showed in the ditch a raised bank which appeared to run under that street, and probably formed the base of a trestle-work supporting the timbers of a wooden bridge crossing the ditch at this place to the ancient gate. In the portion of the ditch revealed by the excavations nothing seems to have been found to clear up its date, but former

excavations near the same spot not only uncovered a portion of the ditch, but brought various Roman antiquities to light. It may, therefore, reasonably be presumed that the ditch recently rediscovered is Roman. Its greatest width is 74 ft., and a space of flat ground upwards of 10 ft. wide intervenes between it and the foot of the Roman wall, which wall, 8 ft. thick and built of rubble work with bonding courses of tile, has been clearly traced running east and west from Aldersgate Street to King Edward Street. The ditch was 14 ft. deep, and 35 ft. across its flat bottom; this, together with the sloping sides, was carefully puddled with a coating of clay 6 in. thick. The greater part of the length of the wall has been preserved and underpinned, so that it now forms the boundary on the north side of the new Post-Office buildings.—*Athenæum*, Feb. 7, 1891.

BRITISH MUSEUM.—*Additions to the Classical Antiquities.*—The Trustees have purchased the magnificent silver treasure of Chavurce which was offered for sale at Paris in June 1888 and is fully described and illustrated in the sale-catalogue whose descriptions are partly based on a study by Thédenat and Héron de Villefosse in the *Gazette Archéologique*, 1885, pp. 111, 256, 317. The treasure was discovered in 1883 in a field near Montcornet (Aisne) in ploughing, and from coins found on the spot and internal evidence is to be dated from the second century. It consists of thirty pieces of silver and six of bronze plated with silver, comprising an almost complete table service, *ministerium*: there are also silver statuettes of Fortuna and of a squatting Arab slave. Especially remarkable are a silver plate with Hermes between a cock and a ram in relief, and a large silver situla with floral ornament around the mouth. The workmanship is throughout of great beauty.

Numismatic acquisitions.—According to a paper by Mr. W. Wroth in the *Numismatic Chronicle*, the British Museum acquired about 350 Greek coins in 1890—12 of them of gold and electrum and 65 of them of silver. Notable among them are a distater of Thourion, a tetradrachm of Gela, a didrachm of Sybrita (Krete), a stater of Lampsakos, and a unique electrum stater of Mytilene. It also obtained 7 archaic coins from Egypt.—*Athenæum*, Feb. 14, 1891.

Greek gem.—The British Museum has recently acquired a most interesting gem, a greyish-blue chalcedony representing Hercules with one foot on the Nemean lion, which he has just conquered, and stretching out his hands to take a draught from a vase which the nymph Nemea has brought to him, and holds in both her hands. Above the group hovers a small Victory. The composition is, as Mr. Murray has remarked, that of a metope, and thus the gem may be of use in restoring the metope of this subject which came to the Louvre from Olympia, while some fragments since found are at Berlin, still, however, leaving the design imperfect.—*Athenæum*, Dec. 6.

A LIFE OF MICHELANGELO.—J. A. Symonds has undertaken a new literary work in the shape of a life of Michael Angelo. The work is to be on a considerable scale, both as to size and profusion of illustrations, and will, of course, embody the result of the latest researches on the biography and artistic labors of the great master.—*Athenæum*, Feb. 14, 1891.

HEBREW MSS. FOR THE MONTEFIORE COLLEGE AT RAMSGATE.—Some months ago we invited the attention of librarians to a collection of 400 Hebrew MSS. which the owner intended to dispose of. We are glad to state now that the Trustees of the Montefiore College at Ramsgate have bought the collection, which contains many unique things—for instance, the annotations on Abraham-ibn-Ezra's commentary on the Pentateuch by Leon Mosconi, a Macedonian. These annotations are important for the history of Macedonia in the fourteenth century, and besides Leon quotes a number of works that are now lost. Hebrew liturgiology will be enriched by some unique rituals which some of these MSS. contain, more especially from Provence. Other MSS. are indispensable for the history of the Jews in Italy from the fourteenth century to the seventeenth. The library of the Montefiore College will possess now—adding the purchase of the Zunz Library, made by the principal, the Rev. Dr. Gaster, and some MSS. coming from Yemen, with other MSS. formerly acquired—more than five hundred Hebrew MSS., and will thus take an important place amongst the great libraries.—*Athenæum*, May 2.

NORTHUMBERLAND.—PREHISTORIC CEMETERIES.—The last part of *Archaeologia Aeliana*, published by the Society of Antiquaries of Newcastle-upon-Tyne, contains two illustrated papers upon recent excavations of prehistoric burial-places on the moors of Northumberland. In both, were found urns of the familiar Romano-British type, which are here figured in excellent photographic plates.—*Academy*, Oct. 4, 1890.

NORTH WALES.—EXCAVATIONS AT VALLE CRUCIS ABBEY.—An interesting archæological discovery is reported from the Vale of Llangollen, where the Vicar of Trevor is conducting a series of excavations at Valle Crucis Abbey. While excavating along the north of the ruin, was discovered the tombstone of a Knight-Templar (bearing a clear impression of the knight's sword sculptured at the base) beneath which were a few decayed bones. In completing the excavations along the west front of the abbey, the base of a spiral staircase was uncovered. The discovery of seven pieces of molten lead and iron and charred wood and stone demonstrated that the original abbey was destroyed by fire; and it is now believed that the momastery was suppressed by Henry VIII during its reconstruction.—*Builder*, Oct. 25, 1890.

PEMBROKESHIRE.—VANDALISM.—"Last Tuesday I visited the magnificent Cromlech of Longhouse in the parish of Llanrian, between St. David's and Fishguard, on the western coast of Pembrokeshire. The immense

capstone still rests on four upright stones, two others stand *in situ*, and the remaining one, which has fallen, lies hard by, partly covered with earth. I found a laborer, engaged, by the orders of his master, Mr. Andrew Griffith of the neighboring farm of Longhouse, in digging up and removing a number of large stones, which may have originally formed a part of a wall of protection, and which were lying buried beneath the side of the Cromlech next the sea. He informed me that his master was contemplating the overthrow of the entire Cromlech, in order to make a bank across the field behind. The farm of Longhouse formed part of the ancient endowment of the Bishopric of St. David's, and has only recently been sold by the Ecclesiastical Commissioners to Mr. Griffith. So noble a monument of antiquity as the Cromlech in question, it may be hoped, may yet be saved from destruction by the timely interposition of General Pitt-Rivers."—G. J. CHESTER, in *Academy*, Sept. 13, 1890.

SILCHESTER.—EXCAVATIONS IN 1890.—The following is a summary of the results obtained during 1890 in the comprehensive excavation of the site of Silchester by the Society of Antiquaries. Hitherto, nothing was known of the great western gate of the city except its site; but the present excavations have disclosed most interesting remains of this gate, under which passed the traffic along the main road through the Roman city. The roadway at the west gate was spanned by two arches. Among the massive fragments of the masonry uncovered is the impost of the gate, from which two arches sprang; and the mouldings on one side may be noted, cut away in order to allow the doors to shut against it. There are found to be two guard-rooms on each side of the gate, those on the south being most perfect. The wall here has a thickness of twelve feet, which decreases as it rises from the ground level; and it is backed by a great mound of earth. One point for investigation is whether or not this mound is of earlier Celtic origin. A paving of flints forms apparently a pathway to the top of the mound. At the west gate a fragment of a fine Corinthian capital has been found. As it has no connection with the structure, it was apparently brought there for some purpose during the occupation of the city. The remains of the west gate are admirable specimens of masonry, large blocks of oölite and other stone having been employed. Among the objects found on the site is a large strip of iron pierced with nail holes, which evidently bound the bottom of a door of the gate and furnishes an idea of its massive thickness. A portion of an iron pivot has also been unearthed. The *insula* which is being dealt with is in proximity to the museum. A house has been excavated at the northwest corner, the museum, in fact, standing on a corner of it. Traces have been found of another large house at the northeast corner. Between the two houses there is a considerable area of open ground. The explorers are led to conjecture that in each square there may have been a

certain number of houses with much open ground, consisting of courtyards and gardens. From its size and from the remains, it is considered that the house excavated was that of one of the wealthier inhabitants of the city. During the excavations, and principally at the *insula*, a large number of objects of antiquity have been unearthed. These have all been carefully labelled and classified, and occupy shelves in the temporary office.—*Academy*, Sept. 6, 1890.

We quote the following from the *Times:* "A discovery of the greatest interest has just rewarded Mr. St. John Hope and his fellow explorers at Silchester. In one of the houses, the foundations of which have been laid bare, the excavators came across a dry well, which, on being explored, proved quite a little museum of antiquities. Some fifteen feet down the diggers found an urn-shaped pottery vase, about a foot high, quite intact, and protected by lumps of chalk built around it. The vase, which probably contained originally some precious substance, was empty. Above it were deposited a great number of iron implements, most of which were in a wonderful state of preservation. They seem to have been the tools of a carpenter and a coppersmith or silversmith, with some miscellaneous objects of blacksmith's work thrown in. The principal specimen is a carpenter's plane of quite modern type, three or four axes, retaining their fine cutting edges still serviceable, a number of chisels and gouges of all shapes and sizes, hammers, adzes, saws, files, *etc.* In the smith's department may be specified a brazier for burning charcoal, quite complete, two or three anvils of different sizes and shapes, a fine pair of tongs adapted for lifting crucibles, a tripod candelabrum lamp, and several other curious objects the precise uses of which have not yet been determined. In addition, there are several large bars of iron, a couple of ploughshares, and a broken sword. Probably more will be found deeper down in the well."—*Academy*, Oct. 4, 1890.

The first report of the Executive Committee of the Silchester Excavation Fund gives the following facts: The excavations began on Monday, June 23rd, on a small portion of the *insula* north of the forum. The exact boundaries of the *insula* were ascertained by trenching, and considerable sections of what seemed boundary walls were laid bare, as well as traces of buildings to the northeast; but further operations were suspended till after the harvest. Next the west gate, which had previously been unexplored, was laid bare, and the north and south gates, already partially excavated in 1872, were laid open, and also a portion of the inner face of the city wall. After harvest the examination of the *insula* was recommenced, and a large house, which had been ornamented with mosaic floors, its walls decorated with color, and its rooms heated with hypocausts, was laid bare. Being near the surface it had suffered from repeated plough-

ing. That part of the *insula* lying south of the highway was outlined, and the street bounding it on that side discovered. North of the highway a series of refuse pits were come upon. In one a perfect bronze scale-beam and a number of iron tools—chisels, axes, hammers, files, anvils, *etc.*—were found. A well was also discovered lined with oak boarding. The basilica has been re-examined. The remains of what appear to be two temples were found near the parish church, which stands close to the site of the east gate. —*Anthenæum*, Dec. 6, 1890.

WINSFORD HILL (Exmoor).—**THE ANCIENT INSCRIBED STONE.**—"In the *Academy* of September 10, 1890, Professor Rhys gave an account of this stone, with its inscription: CARĀACI | EPVS. He conjectured that the initial letter of the second word, which had been broken away, was N, and accordingly interpreted the legend *Carataci nepus* (*i. e.* "kinsman of Caratacus").

I have just been informed that the missing fragment was found and preserved by the Rev. J. J. Coleman, of Dulverton, and that it bears the character ⋀, evidently a misshappen N. Prof. Rhys is therefore right in his interpretation; and the theory of those who wished to make "episcopus" out of *epus* falls to the ground.—J. Ll. W. Page, in *Academy*, Feb. 14.

SPANISH AMERICA.

Names of Metals.—M. le comte de Charency presented at a meeting of the *Acad. des Inscriptions* (May 2, 1890) some remarks on the names of metals among the ancient peoples of Spanish America. Since about the beginning of our era they knew how to work copper, gold, silver, and bronze, but were ignorant of the use of iron. It has been asserted that the Peruvians possessed a process, now lost, for giving to copper the hardness of steel, but this seems to be an unfounded tradition. The comparison of the Mexican names of metals with those of Chiapa and Yucatan shows among the latter a Nahuatl influence over the progress of metallic industry. On the contrary, this art has a far more original development among their neighbors of Guatemala and Soconusco.—*Revue Crit.*, 1890, I, p. 380.

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